## IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with <del>strikethrough</del>. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-3, 25, 26, 28 and 29; and ADD claims 31-34 in accordance with the following:

 (currently amended) A method for <u>supporting a user in predicting a gene expression</u> sites site, the gene expression site being one of a cell, a tissue and an organ, said method comprising:

calculating a distance between a first gene and each of a plurality of second genes on a genome sequence, wherein where the first gene is an unknown gene having an unknown gene expression site is unknown, and while the second gene is one of a plurality of genes are known genes whose having known gene expression sites are known; and

determining the <u>a first gene</u> expression <u>sites of the first gene site</u>, based on the distance, as a selected gene expression site of at least one of the second genes that has a predetermined distance relation with the first gene, the predetermined distance relation having been determined based on a sensitivity and a specificity; and

outputting the first gene expression site determined by said determining.

- (currently amended) The method according to claim 1, wherein the calculating
  includes calculating the distance for each of the plurality of genes, and the determining includes
  determining the expression sites of the first gene as an expression site of at least one gene that
  has is smaller than a predetermined distance relation among the plurality of genes threshold.
- 3. (currently amended) The method according to claim 1, wherein the said calculating includes calculating a <u>first</u> distance between the <u>a start position of a target gene and a start position of the first gene</u>, and <u>a second distance between</u> the start position of <u>the target gene and a start position of</u> the second gene on the genome sequence.

- 4. (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between the end position of the first gene and the end position of the second gene on the genome sequence.
- (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between the start position of the first gene and the end position of the second gene on the genome sequence.
- (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between the end position of the first gene and the start position of the second gene on the genome sequence.
- 7. (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between first and second positions, the first position being between the start and end positions of the first gene on the genome sequence, and the second position being between the start and end positions of the second gene on the genome sequence.
- 8. (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between a position between the start and end positions of the first gene and the start position of the second gene on the genome sequence.
- (withdrawn) The method according to claim 1, wherein the calculating includes
  calculating a distance between a position between the start and end positions of the first gene
  and the end position of the second gene on the genome sequence.
- 10. (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between the start position of the first gene and a position between the start and end positions of the second gene on the genome sequence.
- 11. (withdrawn) The method according to claim 1, wherein the calculating includes calculating a distance between the end position of the first gene and a position between the start and end positions of the second gene on the genome sequence.

Claims 12-24 (cancelled)

25. (currently amended) A <u>computer-readable medium encoded with a computer</u> program, <del>product-including computer executable instructions, for <u>supporting a user in predicting a gene expression-sites site</u>, <u>wherein-the gene expression site being one of a cell, a tissue and an organ, and the <u>computer executable</u> instructions, when executed by the computer, cause the computer to perform a method comprising:</del></u>

calculating a distance between <u>a</u> first <u>gene</u> and <u>each of a plurality of</u> second genes on a genome sequence, wherein where the first <u>gene</u> is an <u>unknown gene</u> having an <u>unknown gene</u> expression site of the first gene is unknown, and while the second gene is one of a plurality of genes whose are known genes having known gene expressions sites are known; and

determining the <u>a first gene</u> expression <u>sites site</u> of the first gene, based on the distance, as a selected gene expression site of at least one of the second genes that has a predetermined distance relation with the first gene, the predetermined distance relation having been determined based on a sensitivity and a specificity; and

outputting the first gene expression site as determined by said determining.

26. (currently amended) The computer program product according to claim 25, wherein the determining include determining the expression sites of the first gene as an expression site of at least one gene that has distance is smaller than a predetermined distance relation among the plurality of genes threshold.

## 27. (cancelled)

- 28. (currently amended) An apparatus for <u>supporting a user in predicting a gene</u> expression <u>site</u>, <u>where the gene expression site is one of a cell</u>, <u>a tissue and an organ</u>, <u>said apparatus</u> comprising:
- a calculation unit that calculates a distance between <u>a</u> first <u>gene</u> and <u>each of a plurality of</u> second genes on a genome sequence, <u>wherein-where the first gene is</u> an <u>unknown gene having</u> <u>an unknown gene</u> expression site-of the first gene is unknown, and <u>while</u> the second gene is one of a plurality of genes whose <u>are known genes having known gene</u> expression sites are known; and
- a determination unit that determines the <u>a first gene</u> expression sites <u>site</u> of the first gene, based on the distance, as a selected gene expression site of at least one of the second

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genes that has a predetermined distance relation with the first gene, the predetermined distance relation having been determined based on a sensitivity and a specificity; and

an output unit that outputs the first gene expression site determined by said determination unit.

- 29. (currently amended) The apparatus according to claim 28, wherein the calculation unit calculates the distance for each of the plurality of genes, and the determination unit determines the expression sites of the first gene as an expression site of at least one gene that has is smaller than a predetermined distance relation among the plurality of genes threshold.
  - 30. (cancelled)
- 31. (new) The method according to claim 1, wherein when the first site and the second site are identical, the second site is deleted from the list before being output.
  - 32. (new) The method according to claim 1,

wherein the sensitivity is a ratio of predicted expression sites for an unknown gene to previously determined expression sites for the unknown gene determined by another method, and

wherein the specificity is a ratio of unpredicted expression sites for the unknown gene to non-expression sites for the unknown gene previously determined by the other method.

33. (new) A method of supporting a user in determining a gene expression site, comprising:

calculating a distance of an unknown gene having an unknown gene expression site from each of a plurality of known gene expression sites for known genes on a genome sequence; and

outputting a predicted gene expression site of the unknown gene based on a sensitivity, a specificity and the distance calculated between the unknown gene and at least one of the known genes.